Mechanical Drawing Conventions

Nov. 2, 2000

A. Drawing Conventions

Mechanical and electronics drawings will follow STAR conventions as expressed in STAR Note 106C.

The acronym for the endcap electromagnetic calorimeter will be EEC. So a STAR drawing number will be

EECxxx-drawing size-sheet number

e.g. EEC101-E-2

where xxx is a number 000-999. These numbers will be divided up into logical subgroups and a list of numbers cross listed with titles will be maintained. In addition an internal number will be derived from the STAR number by eliminating the drawing size. Part numbers to be attached to individual manufactured parts will be generated from the drawing number, a line in the table if the instance of the part is generated from a table , and an incrementing version number assigned during production. The form will be

EECxxx-line number-version number

e.g. EEC101-21-4.

This part is the 4th part produced according to line 21 in the table on drawing EEC101.

The WBS number for parts in the drawing will be listed in the title block to level 4.

Default dimension tolerance blocks will be developed appropriate to the size of the drawing. Typically there will be a block for small high precision parts and another appropriate for large parts.

B. Drawing approval

The title block on drawings will contain the following lines to check off drawing approval:

Drawn by
checked by
Design Approval
Supervisor Approval

The person who turns a modeled part into a drawing will initial the "Drawn by" line. The "checked by" line will be initialed after drawing checking by a person not involved in the design of the part when deemed necessary by the responsible engineer or subsystem manager. "Design Approval" will be given by an engineer responsible for the subsystem or the subsystem manager (currently jpp for mechanical). "Supervisor approval" will be given by the system manager(currently js for mechanical). In addition, "Production Approval" will be given by the Project Manager (currently wwj) after final design review of a scope determined appropriate to the parts in question.

C. Change Control

Drawing and model change control will be instituted after a design group review establishing a stable model. Pro-E tools will be used to maintain versions and revisions of the mechanical subsystem. The subsystem manager will approve all changes.The project manager's approval will be needed if there are budget implications, changes in detector performance or interactions with other subsystems.

The following categories will be used for revisions:

ID - Initial Design
P - Prototype part that has passed approval for manufacturing or to be sent out for bids.
Pn - n=1,2,3... Used for updates of prototype parts
A - Part that has passed approval to be sent out for bid or manufacturing. Upgraded from ID or P and is intended for use in final detector or as tooling.
B.. - Revisions encountered during bidding or production.

At the time of release the drawings will be printed on 11"x17" sheets and stored in a common binder for future reference. Also dxf files will be generated for each sheet and stored on the IUCF Cad disk in the Star/Engineering drawings directory. The file name will generated from the drawing number plus the revision.

Revisions to P or A series drawings will require engineering change notes. These will be numbered and hard copies maintained in a folder. The same notes should be entered in Intralink. The ECN is generated by the engineer or designer modifying the model/drawings. It will describe the changes made, impacts on other parts and impacts on other subsystems.

star/group/EEMC_draw_conv.tex 11/2/00